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EXAMINER

MCCARTHY, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,604

Applicant(s)

ADAMS ET AL.

Examiner

Christopher S. McCarthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-25 is/are allowed.
- 6) ☒ Claim(s) 1-17 and 26-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-17, 26-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Li U.S. Patent 6,637,013, as cited in prior office action, which was mailed on 9/8/2004.
2. Claims 18-25 are allowed.

Specification

3. Claim 44 is objected to because of the following informalities: The claim is dependent upon itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-17, 26-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Li U.S. Patent 6,637,013.

As per claim 1, Li teaches a method of auditing a design process, said method comprising: producing a library usage file for a step in a design process using design data (column 2, lines 44-67; column 6, lines 7-21); grouping related statements in said library usage

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file according to parent-child relationships (column 6, line 23 – column 9, line 16); performing an audit by reading said library usage file and an audit rule into a quality monitor program (column 2, lines 44-67); and producing a report of errors in said library usage file based on said audit rule (column 2, lines 44-67; column 7, lines 1-5).

As per claim 2, Li teaches the method in claim 1, wherein said library usage file and/or said audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-child relationship where said PROGRAM is said parent and said OBJECT statement is said child (column 7, line 10 – column 8, line 30).

As per claim 3, Li teaches the method in claim 1, wherein said library usage file and/or said audit rule file may include an INFO statement (column 7, line 16) for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said INFO statement is said child (column 7, lines 53-56).

As per claim 4, Li teaches the method in claim 1, wherein said library usage file and/or said audit rule may include a TASK statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said TASK statement is said child (column 7, lines 53-55).

As per claim 5, Li teaches the method in claim 3, wherein said INFO statement increases a reporting ability of said quality monitor program (column 7, line 16; column 2, lines 44-57).

As per claim 6, Li teaches the method in claim 3, wherein said library usage file includes a library usage file INFO statement includes a value which may be checked by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 7, Li teaches the method in claim 3, wherein said audit rule includes an audit rule INFO statement that may include a value checking expression used by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 8, Li teaches the method in claim 1, wherein further comprising querying for a processing mode for said design step using said design data and technology data (column 5, lines 39-46); wherein said audit is performed by reading said library usage file, said processing mode, and an audit rule into a quality monitor program: and wherein said report of errors in said library usage file is based on said audit rule and said processing mode (column 2, lines 44-67; column 6, lines 7-21; column 7, line 1-5).

As per claim 9, Li teaches the method in claim 1, wherein said audit rule may include a condition used by said quality monitor program to check said library usage file (column 2, lines 54-56).

As per claim 10, Li teaches the method in claim 9, wherein said quality monitor program evaluates said condition using said processing mode to check said library usage file (column 2, lines 44-67).

As per claim 11, Li teaches a method of auditing a design process, said method comprising: producing a library usage file for a step in a design process using design data (column 2, lines 44-67; column 6, lines 7-21); querying for a processing mode for said design step in said design process using said design data and technology data (column 5, lines 39-46); and performing an audit by reading said library usage file, said processing mode, and an audit rule into a quality monitor program, wherein said audit rule may include a condition used by said quality monitor to check said library usage file and wherein said quality monitor evaluates said

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condition using said processing mode (column 2, lines 44-67; column 6, lines 7-21; column 7, lines 1-5).

The method in claim 12, wherein said library usage file and/or said audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-child relationship where said PROGRAM is said parent and said OBJECT statement is said child (column 7, lines 53-56; column 7, line 10 – column 8, line 30).

As per claim 13, Li teaches the method in claim 11, wherein said library usage file and/or said audit rule file may include an INFO statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said INFO statement is said child (column 7, line 16, 53-55).

As per claim 14, Li teaches the method in claim 11, wherein said library usage file and/or said audit rule may include a TASK statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said TASK statement is said child (column 7, lines 53-55).

As per claim 15, Li teaches the method in claim 13, wherein said INFO statement increases a reporting ability of said quality monitor program (column 7, line 16; column 2, lines 44-67).

As per claim 16, Li teaches the method in claim 13, wherein said library usage file includes a library usage file INFO statement includes a value which may be checked by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 17, Li teaches the method in claim 13, wherein said audit rule includes an audit rule INFO statement may include a value checking expression used by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 26, Li teaches a computer-readable medium containing computer-readable instructions when executed for performing a method of auditing a design process, said method comprising: producing a library usage file for a step in a design process using design data; grouping related statements in said library usage file according to parent-child relationships (column 6, line 23 – column 9, line 16); performing an audit by reading said library usage file and an audit rule into a quality monitor program; and producing a report of errors in said library usage file based on said audit rule (column 2, lines 44-67; column 6, lines 7-21; column 7, lines 1-5).

As per claim 27, Li teaches the computer-readable medium in claim 26, wherein said library usage file and/or said audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-child relationship where said PROGRAM is said parent and said OBJECT statement is said child (column 7, lines 53-56; 10 – column 8, line 30).

As per claim 28, Li teaches the computer-readable medium in claim 26, wherein said library usage file and/or said audit rule file may include an INFO statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said INFO statement is said child (column 7, lines 16, 53-55).

As per claim 29, Li teaches the computer-readable medium in claim 26, wherein said library usage file and/or said audit rule may include a TASK statement for an OBJECT

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organized according to a parent-child relationship where said OBJECT is said parent and said TASK statement is said child (column 7, lines 53-55).

As per claim 30, Li teaches the computer-readable medium in claim 28, wherein said INFO statement increases a reporting ability of said quality monitor program (column 7, line 16; column 2, lines 44-67).

As per claim 31, Li teaches the computer-readable medium in claim 28, wherein said library usage file includes a library usage file INFO statement that includes a value which may be checked by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 32, Li teaches computer-readable medium in claim 28, wherein said library usage file includes an audit rule INFO statement that may include a value checking expression used by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 33, Li teaches the computer-readable medium in claim 26, further comprising querying for a processing mode for said design step using said design data and technology data; wherein said audit is performed by reading said library usage file, said processing mode, and an audit rule into a quality monitor program; and wherein said report of errors in said library usage file is based on said audit rule and said processing mode (column 5, lines 39-46; column 2, lines 44-67; column 6, lines 7-21; column 7, lines 1-5).

As per claim 34, Li teaches the computer-readable medium in claim 26, wherein said audit rule may include a condition used by said quality monitor to check said library usage file (column 2, lines 54-56).

As per claim 35, Li teaches the computer-readable medium in claim 34, wherein said quality monitor program evaluates said condition using said processing mode to check said library usage file (column 2, lines 44-67).

As per claim 36, Li teaches a computerized design system for performing a method of auditing a design process, said method comprising: producing a library usage file for a step in a design process using design data; grouping related statements in said library usage file according to parent-child relationships (column 6, line 23 – column 9, line 16); performing an audit by reading said library usage file and an audit rule into a quality monitor program; and producing a report of errors in said library usage file based on said audit rule (column 2, lines 44-67; column 6, lines 7-21; column 7, lines 1-5).

As per claim 37, Li teaches the computerized design system in claim 36, wherein said library usage file and/or said audit rule may include an OBJECT statement for a PROGRAM organized according to a parent-child relationship where said PROGRAM is said parent and said OBJECT statement is said child (column 7, lines 53-56, 10 – column 8, line 30).

As per claim 38, Li teaches the computerized design system in claim 36, wherein said library usage file and/or said audit rule may include an INFO statement for a OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said INFO statement is said child (column 7, lines 53-56, 10 – column 8, line 30).

As per claim 39, Li teaches the computerized design system in claim 36, wherein said library usage file and/or said audit rule may include a TASK statement for an OBJECT organized according to a parent-child relationship where said OBJECT is said parent and said TASK statement is said child (column 7, lines 53-56).

As per claim 40, Li teaches the computerized design system in claim 38, wherein said INFO statement increases a reporting ability of said quality monitor program (column 7, line 16; column 2, lines 44-67).

As per claim 41, Li teaches the computerized design system in claim 38, wherein said library usage file includes a library usage file INFO statement that includes a value which may be checked by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 42, Li teaches the computerized design system in claim 36, wherein said audit rule includes an audit rule INFO statement that may include a value checking expression used by said quality monitor program during said audit (column 7, lines 16-18).

As per claim 43, Li teaches the computerized design system device in claim 36, wherein further comprising querying for a processing mode for said design step using said design data and technology data; wherein said audit is performed by reading said library usage file, said processing mode, and an audit rule into a quality monitor program; and wherein said report of errors in said library usage file is based on said audit rule and said processing mode (column 5, lines 39-46; column 2, lines 44-67; column 6, lines 7-21; column 7, lines 1-5).

As per claim 44, Li teaches the computerized design system in claim 44, wherein said quality monitor program evaluates said condition using said processing mode to check said library usage file (column 2, lines 44-67).

Allowable Subject Matter

5. Claims 18-25 are allowed.

6. The following is an examiner's statement of reasons for allowance: When read as a whole, the primary reason for allowance of claim 18 is the limitation wherein said audit rule includes a second INFO statement which may include a value checking expression used by said quality monitor program during said audit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

7. Applicant's arguments filed 12/8/2004 have been fully considered but they are not persuasive.

With respect to claims 1, 26, and 36, the applicant has argued that Li does not teach grouping related statements in a library usage file according to parent-child relationships. The examiner respectfully disagrees. Li teaches in column 6, lines 7-21, the use of library files containing design programs, and further teaches in column 3, lines 18-50, the utilization of multiple parent-child programs contained in the design database and, therefore, in the library files. Furthermore, Li uses an example of the relationship of a parent-child program connection in column 6, line 23 through column 9, line 16. Therein, Li teaches a program, SKILL, which acts as the parent program to the DRC program (column 7, line 10 – column 8, line 30). The SKILL program calls the DRC program to fix the DRC errors that are found using the SKILL program. Upon the completion of the DRC program loop, the DRC program returns to the

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SKILL program for the next error found. This relationship of the SKILL program to the DRC program is an example of how a parent-child relationship among programs exist. Therefore, the limitation of related statements in a library file grouped according to a parent-child relationship is taught by Li and all applicable claims stand rejected.

With respect to claim 11, the applicant argues that Li does not teach the querying of a processing mode and performing the audit based in part on the processing mode. The examiner respectfully disagrees. Interpreting the claim language, the examiner contends that a “processing mode” is a very broad term and can be interpreted as merely the state of the process of the program or design step. In broadest terms, the term “processing mode” has been interpreted as meaning whether the design step is in execution or not, which would be inherent in the process of Li as the design process would determine what design step would be needed by the occurrence of an error or the non-occurrence of an error; or, merely, if the design step is being processed or not. If the term “processing term” needs to be defined by a more specific definition, the applicant is urged to place more specific terminology into the claim language. In light of the prior argument, all applicable claims stand rejected.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csn
March 18, 2005


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